

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---------------------------------|---|------------------|---------|------------------|
| L1 | 692 | 'displacement assay' | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:53 |
| L2 | 2 | I1 and 'heat killed' | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:53 |
| L3 | 442 | I1 and antibody | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:54 |
| L4 | 320 | I3 and antigen | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:54 |
| L5 | 1 | I4 and varnish | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:57 |
| L6 | 6 | I4 and 'tetramethyl benzidine' | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:58 |
| L7 | 113 | I4 and 'horseradish peroxidase' | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/12/07 18:58 |

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FILE 'CA' ENTERED AT 19:13:51 ON 07 DEC 2005
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FILE COVERS 1907 - 1 Dec 2005 VOL 143 ISS 24
FILE LAST UPDATED: 1 Dec 2005 (20051201/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s displacement(w)assay?  
      91521 DISPLACEMENT  
      488357 ASSAY?  
L1          438 DISPLACEMENT(W)ASSAY?
```

```
=> s 11 and heat(w)killed
1198243 HEAT
48511 KILLED
2466 HEAT(W)KILLED
L2          1 L1 AND HEAT(W)KILLED
```

=> d all

L2 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
AN 142:51793 CA
ED Entered STN: 13 Jan 2005
TI ***Displacement*** ***assay*** for selective biological material
detection
IN Bodenhamer, William T.
PA USA
SO U.S. Pat. Appl. Publ., 10 pp., nul
CODEN: USXXCO
DT Patent
LA English
IC ICM G01N033-53
ICS G01N033-537; G01N033-543; C12M001-34
INCL 435007920; 435287200; 427002110
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 4, 10, 17

| FAN.CNT 1 | | | | |
|------------|-----------------|-------|------------------------------------|-----------------|
| PATENT NO. | | KIND | DATE | APPLICATION NO. |
| PI | US 2004259178 | A1 | 20041223 | US 2004-767464 |
| PRAI | US 2003-443299P | P | 20030128 | 20040128 |
| CLASS | | | | |
| PATENT NO. | | CLASS | PATENT FAMILY CLASSIFICATION CODES | |

US 2004259178 ICM G01N033-53
US 2004259178 ICS G01N033-537; G01N033-543; C12M001-34
US 2004259178 INCL 435007920; 435287200; 427002110
US 2004259178 NCL 435/007.920
US 2004259178 ECLA G01N033/569D

AB The present invention relates to ***displacement*** ***assay*** type bioassay materials useful for the detection of toxic substances and, more particularly, to packaging materials for food and other products, along with methods for their manuf. and use. The invention provides a unique composite material capable of detecting and identifying multiple biol. materials within a single package. The biol. material identification system is designed for incorporation into existing types of flexible packaging material such as polyvinylchloride or polyolefin films, and its introduction into the existing packaging infrastructure will require little or no change to present systems or procedures. *Pseudomonas* LPS was printed in an icon shape in a water based varnish on strips of plastic. The strips were reacted with antibody-horseradish peroxidase conjugate, washed and placed in either wash buffer or ***heat*** - ***killed*** *Pseudomonas* soln. The strips were washed, dried and treated with TMB. The antibody-HRP conjugate was displaced by *Pseudomonas* in soln. as seen by color removal from the strips.

ST ***displacement*** ***assay*** biol material detection; toxic substance detection displacement bioassay; packaging material biol identification system; *Pseudomonas* detection antibody peroxidase conjugate ***displacement*** ***assay***

IT Adhesives
(Bynel, as polymer film; ***displacement*** ***assay*** for selective biol. material detection)

IT Plastics, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(*Pseudomonas* lipopolysaccharides printed in icon shape in water-based varnish on strips of; ***displacement*** ***assay*** for selective biol. material detection)

IT Lipopolysaccharides
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(*Pseudomonas*, printed in icon shape in water-based varnish on plastic strips; ***displacement*** ***assay*** for selective biol. material detection)

IT Varnishes
(antibody bound through sol.; ***displacement*** ***assay*** for selective biol. material detection)

IT Polyolefins
RL: DEV (Device component use); USES (Uses)
(as polymer film; ***displacement*** ***assay*** for selective biol. material detection)

IT Food packaging materials
Packaging materials
(biol. material identification system in; ***displacement*** ***assay*** for selective biol. material detection)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates; ***displacement*** ***assay*** for selective biol. material detection)

IT Pseudomonas
(detection of; ***displacement*** ***assay*** for selective biol. material detection)

IT Biological materials
Coloring materials
(***displacement*** ***assay*** for selective biol. material detection)

IT Toxins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(***displacement*** ***assay*** for selective biol. material detection)

IT Polyamides, uses

RL: DEV (Device component use); USES (Uses)
(***displacement*** ***assay*** for selective biol. material
detection)

IT Polymers, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
(Analytical study); USES (Uses)
(***displacement*** ***assay*** on clear and flexible film of;
displacement ***assay*** for selective biol. material
detection)

IT Bioassay
(displacement; ***displacement*** ***assay*** for selective
biol. material detection)

IT Composites
(for identifying multiple biol. materials within single package;
displacement ***assay*** for selective biol. material
detection)

IT Antigens
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
DEV (Device component use); ANST (Analytical study); BIOL (Biological
study); USES (Uses)
(***heat*** - ***killed*** or facsimile, ***displacement***
assay with; ***displacement*** ***assay*** for
selective biol. material detection)

IT Films
(of clear and flexible polymers, ***displacement*** ***assay***
on; ***displacement*** ***assay*** for selective biol. material
detection)

IT 9002-88-4, Polyethylene
RL: DEV (Device component use); USES (Uses)
(Sclair, as polymer film; ***displacement*** ***assay*** for
selective biol. material detection)

IT 9002-86-2, Polyvinylchloride 32131-17-2, Dartek, uses
RL: DEV (Device component use); USES (Uses)
(as polymer film; ***displacement*** ***assay*** for selective
biol. material detection)

IT 9003-99-0D, Peroxidase, conjugates with antibody
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES
(Uses)
(***displacement*** ***assay*** for selective biol. material
detection)

IT 34314-06-2, Tetramethyl benzidine
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study);
RACT (Reactant or reagent); USES (Uses)
(***displacement*** ***assay*** for selective biol. material
detection)

=> s 11 and antibod?
438445 ANTIBOD?
L3 56 L1 AND ANTIBOD?

=> s 13 and varnish
25370 VARNISH
L4 1 L3 AND VARNISH

=> d ti

L4 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
TI ***Displacement*** ***assay*** for selective biological material
detection

=> s 13 and polymer(w)film?
1008419 POLYMER
1131796 FILM?
34947 POLYMER(W) FILM?
L5 1 L3 AND POLYMER(W) FILM?

=> d ti

L5 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
TI ***Displacement*** ***assay*** for selective biological material
detection

=> d his

(FILE 'HOME' ENTERED AT 19:13:21 ON 07 DEC 2005)

FILE 'CA' ENTERED AT 19:13:51 ON 07 DEC 2005

L1 438 S DISPLACEMENT(W)ASSAY?
L2 1 S L1 AND HEAT(W)KILLED
L3 56 S L1 AND ANTIBOD?
L4 1 S L3 AND VARNISH
L5 1 S L3 AND POLYMER(W)FILM?

=> logoff y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 22.62 | 22.83 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -1.36 | -1.36 |

STN INTERNATIONAL LOGOFF AT 19:17:55 ON 07 DEC 2005

Day : Wednesday

Date: 12/7/2005

Time: 19:19:07

PALM INTRANET**Inventor Name Search Result**

Your Search was:

Last Name = BODENHAMER

First Name = [Nothing Entered]

| Application# | Patent# | Status | Date Filed | Title | Inventor Name |
|--------------------------|------------|--------|------------|---|------------------------|
| 60220954 | Not Issued | 159 | 07/26/2000 | Special techniques for signal processing | BODENHAMER, ALBERT |
| 06044508 | 4222654 | 150 | 06/01/1979 | CAMERA ADAPTER BRACKET | BODENHAMER, DONALD J. |
| 07002702 | Not Issued | 161 | 01/12/1987 | COUPLING | BODENHAMER, ROBERT L. |
| 07084813 | 4775982 | 150 | 08/13/1987 | CRUCIBLE FOR ELECTRIC ARC FURNACE | BODENHAMER, ROBERT L. |
| 07234699 | Not Issued | 161 | 08/22/1988 | SEASONING DISPENSER | BODENHAMER, ROBERT L. |
| 09218827 | 6051388 | 150 | 12/22/1998 | METHOD AND APPARATUS FOR SELECTIVE BIOLOGICAL MATERIAL DETECTION | BODENHAMER, WILLIAM T |
| 09550777 | 6376204 | 150 | 04/17/2000 | METHOD AND APPARATUS FOR SELECTIVE BIOLOGICAL MATERIAL DETECTION | BODENHAMER, WILLIAM T. |
| 09550779 | 6379908 | 150 | 04/17/2000 | METHOD AND APPARATUS FOR SELECTIVE BIOLOGICAL MATERIAL DETECTION | BODENHAMER, WILLIAM T. |
| 09724438 | 6692973 | 150 | 11/28/2000 | SURFACE BINDING OF AN IMMUNOGLOBULIN TO A FLEXIBLE POLYMER USING A WATER SOLUBLE VARNISH MATRIX | BODENHAMER, WILLIAM T. |
| 09837559 | Not Issued | 160 | 04/17/2001 | Method and apparatus for biological material detection by heterogeneous light transmission | BODENHAMER, WILLIAM T. |
| 09837639 | 6696264 | 150 | 04/17/2001 | METHOD AND APPARATUS FOR DETECTION OF | BODENHAMER, WILLIAM T. |

| | | | | | |
|---------------------------------|------------|-----|------------|---|------------------------|
| | | | | MULTIPLE BIOLOGICAL MATERIALS WITH A HETEROGENEOUS ANTIBODY MIXTURE | |
| <u>09930563</u> | 6841392 | 150 | 08/15/2001 | METHOD AND APPARATUS FOR SELECTIVE BIOLOGICAL MATERIAL DETECTION | BODENHAMER, WILLIAM T. |
| <u>10002402</u> | 6867052 | 150 | 10/25/2001 | BIOLOGICAL MATERIAL DETECTING ARTICLES OF MANUFACTURE | BODENHAMER, WILLIAM T. |
| <u>10767464</u> | Not Issued | 30 | 01/28/2004 | Displacement assay for selective biological material detection | BODENHAMER, WILLIAM T. |
| <u>60443299</u> | Not Issued | 159 | 01/28/2003 | Displacement assay for selective biological material detection | BODENHAMER, WILLIAM T. |

Inventor Search Completed: No Records to Display.

| | | |
|---------------------------------|---|---------------------------------------|
| Search Another: Inventor | Last Name | First Name |
| | <input type="text" value="bodenhamer"/> | <input type="text"/> |
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